

5.6 70th Street and O Street

BEFORE

ADT: 52,625 veh/day (2000)

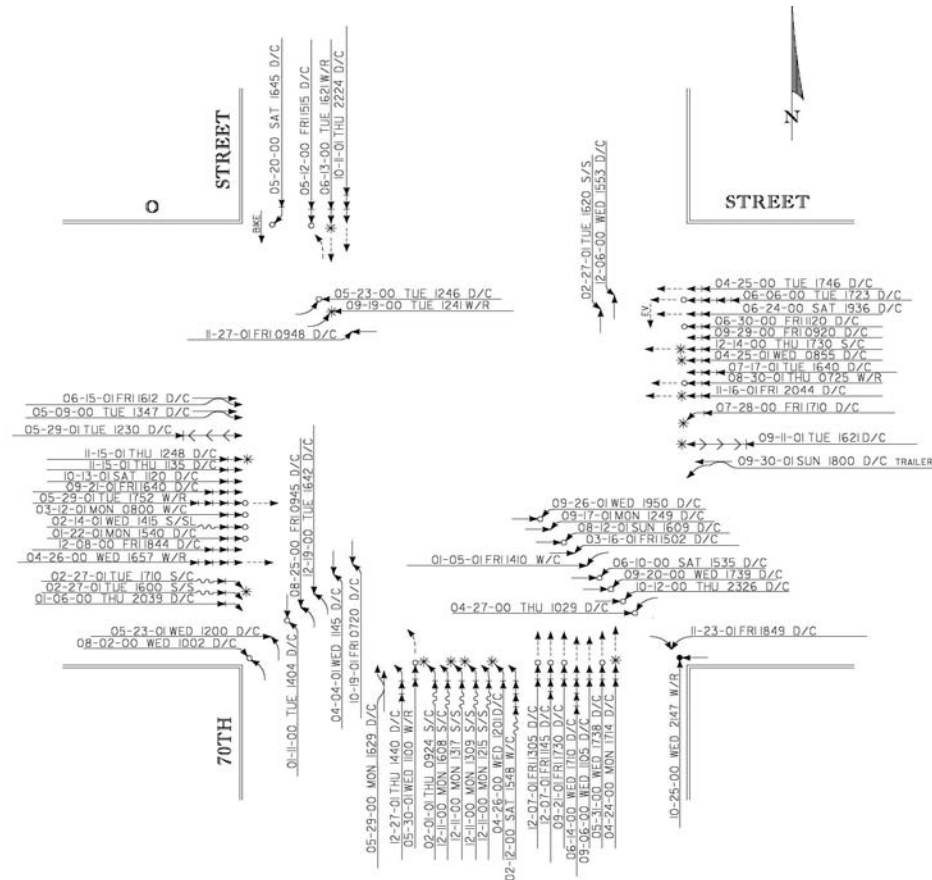
Time Period:

2000-01

Traffic Control: Actuated Coordinated Signal

Crash Pattern:

All Rear Ends
NB & WB Left Turns



Total Crashes in Before Period: 73



70th Street and O Street - Eastbound Approach (Before)

AFTER

5.6 70th Street and O Street

Countermeasures: Constructed EB & WB Thru and NB, SB, EB, & WB Dual Left Turn Lanes, Rebuilt Traffic Signal

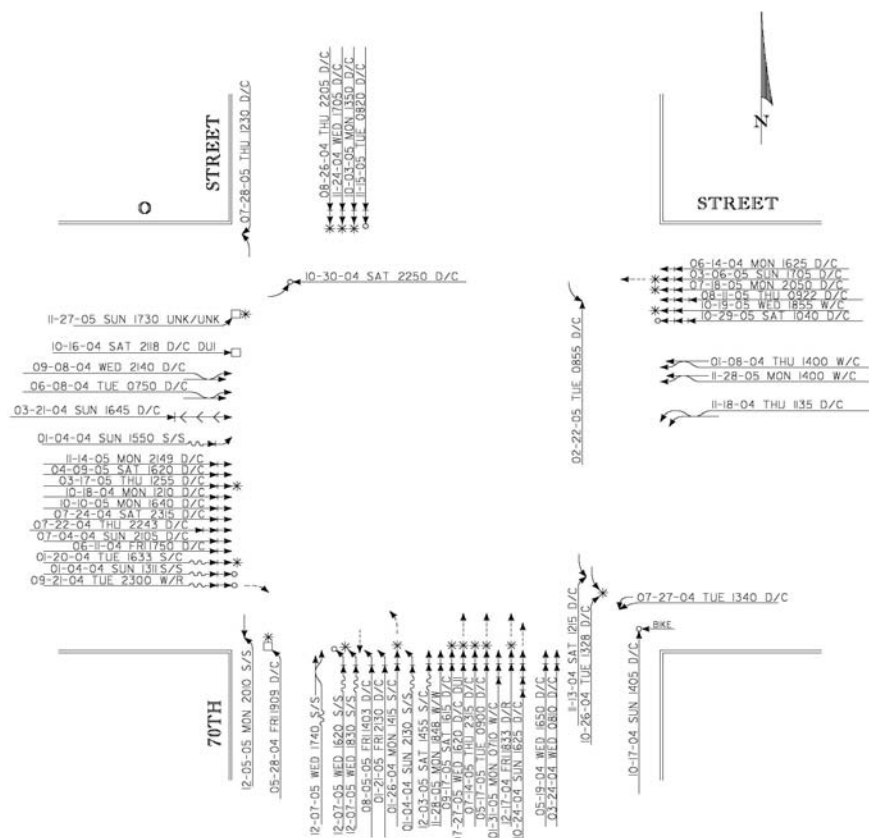
Time Period:

2004-05

Improvement Completion Date: October 24, 2003

Speed Limits:

NS Arterial- 35 mph
EW Arterial- 40 mph EB/
45 mph WB



Total Crashes in After Period: 58



70th Street and O Street - Eastbound Approach (After)

5.6 70th Street and O Street

COMPARISON

Countermeasures:

Constructed EB & WB Thru and NB, SB, EB, & WB Dual Left Turn Lanes, Rebuilt Traffic Signal

Improvement Completion Date:

October 24, 2003

	Before	After	Change
Analysis Period	2000-01	2004-05	-
Primary Crash Benefit			
Total Number of Correctable Crashes	45	24	-47%
All Other Intersection Crashes	28	34	21%
Intersection Crash Experience			
Injury + Fatal Crashes	24	7	-71%
Property Damage-Only Crashes	35	33	-6%
Non-Reportable Crashes	14	18	29%
<i>Total Number of Intersection Crashes</i>	<i>73</i>	<i>58</i>	<i>-21%</i>
Total Intersection Benefit			
Crash Rate	1.83	1.4	-23%
EPDO Rate	6.48	2.57	-60%
EPDO Number*	259.18	106.81	-152.37

Cost of Property Damage Crash: \$ 6,500
Total Benefit (12 months): \$ 990,405
Equivalent Uniform Annual Benefit (EUAB): \$ 1,271,340

Total Cost of Improvements:

Equivalent Uniform Annual Cost (EUAC): \$ 65,390
Initial Cost: \$ 750,000 (Estimated)

Benefit-Cost Ratio:
$$\frac{\$ 1,271,340}{\$ 65,390} = 19.4$$

Net Benefit (Present Worth): \$ 1,271,340 - \$65,390 = \$1,205,950

**Change Statistically Significant at 95% Confidence Interval*

This page intentionally left blank.